

**IN THE CLAIMS:**

Amend the claims as follows:

1. (Currently Amended) ~~A derivative of an~~An antibody conjugate, comprising a monoclonal antibody or ~~the~~ an antibody fragment thereof ~~which specifically reacts with ganglioside GD3 which is conjugated with a radioisotope, a protein or a low molecular weight agent, wherein the monoclonal antibody or the antibody fragment thereof~~ specifically binds to ganglioside GD3 and comprises:

CDR1, CDR2 and CDR3 of H chain V region having the amino acid sequences represented by SEQ ID NOs:3, 4 and 5, respectively; and

CDR1, CDR2 and CDR3 of L chain V region having the amino acid sequences represented by SEQ ID NOs:6, 7 and 8, respectively.

2. (Currently Amended) ~~The derivative of an~~antibody conjugate according to claim 1, wherein the monoclonal antibody which specifically ~~reacts with~~ binds to ganglioside GD3 is an antibody selected from an antibody produced by a hybridoma, a human chimeric antibody, a humanized antibody and a human antibody.

Claims 3-5. (Canceled)

6. (Currently Amended) ~~The derivative of an~~antibody conjugate according to claim 2, wherein the antibody produced by a hybridoma is produced by a transformant KM641 (FERM BP-3116).

Claims 7-8. (Canceled)

9. (Currently Amended) ~~The derivative of a human chimeric antibody conjugate~~  
according to ~~claim 7~~ claim 2, wherein the human chimeric antibody comprises:

~~an H chain V region and an L chain V region of a monoclonal antibody produced~~  
~~against ganglioside GD3 by a hybridoma; and~~

CDR1, CDR2 and CDR3 of H chain V region having the amino acid sequences  
represented by SEQ ID NOs:3, 4 and 5, respectively;

CDR1, CDR2 and CDR3 of L chain V region having the amino acid sequences  
represented by SEQ ID NOs:6, 7 and 8, respectively; and

an H chain constant region (C region) and an L chain C region of a human  
antibody.

10. (Currently Amended) The derivative of a human chimeric antibody according  
to claim 2 ~~claim 8~~, wherein the H chain V region comprises the amino acid sequence  
represented by SEQ ID NO:55.

11. (Currently Amended) The derivative of a human chimeric antibody according  
to claim 2 ~~claim 8~~, wherein the L chain V region comprises the amino acid sequence  
represented by SEQ ID NO:56.

12. (Currently Amended) The derivative of a human chimeric antibody according to claim 2 ~~claim 8~~, wherein

the H chain V region comprises the amino acid sequence represented by SEQ ID NO:55; and

the L chain V region comprises the amino acid sequence represented by SEQ ID NO:56.

13. (Currently Amended) The derivative of a human chimeric antibody KM871 according to claim 2 ~~claim 8~~, wherein

the H chain V region comprises the amino acid sequence represented by SEQ ID NO:55; and

the L chain V region comprises the amino acid sequence represented by SEQ ID NO:56.

Claim 14. (Canceled)

15. (Currently Amended) The ~~derivative of a human CDR-grafted antibody conjugate~~ according to ~~claim 7~~ claim 2, wherein the ~~human CDR-grafted~~ humanized antibody comprises:

~~CDRs of an H chain V region and an L chain V region of a monoclonal antibody against ganglioside GD3; and~~

CDR1, CDR2 and CDR3 of the H chain V region having the amino acid sequences represented by SEQ ID NOs:3, 4 and 5, respectively;

CDR1, CDR2 and CDR3 of the L chain V region having the amino acid sequences represented by SEQ ID NOs:6, 7 and 8, respectively; and  
framework regions (FRs) of an H chain V region and an L chain V region of a human antibody.

16. (Currently Amended) The ~~derivative of an antibody conjugate~~ according to ~~claim 7~~ claim 2, wherein the ~~human CDR-grafted humanized~~ antibody comprises:

~~CDRs of an H chain V region and an L chain V region of a monoclonal antibody against ganglioside GD3;~~

CDR1, CDR2 and CDR3 of the H chain V region having the amino acid sequences represented by SEQ ID NOs:3, 4 and 5, respectively;

CDR1, CDR2 and CDR3 of the L chain V region having the amino acid sequences represented by SEQ ID NOs:6, 7 and 8, respectively;

FRs of an H chain V region and an L chain V region of a human antibody; and  
an H chain C region and an L chain C region of a human antibody.

Claims 17-19. (Canceled)

20. (Currently Amended) The derivative of a human CDR-grafted antibody according to claim 2~~claim 14~~, wherein the H chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:9.

21. (Currently Amended) The derivative of a human CDR-grafted antibody according to claim 2~~claim 14~~, wherein the L chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:54.

22. (Currently Amended) The derivative of a human CDR-grafted antibody according to claim 2~~claim 14~~, wherein the H chain V region and the L chain V region of the antibody comprises the amino acid sequences represented by SEQ ID NO:9 and SEQ ID NO:54, respectively.

23. (Currently Amended) The derivative of a human CDR-grafted antibody KM8871 according to claim 2~~claim 14~~, wherein

the H chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:9; and

the L chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:54.

24. (Currently Amended) The ~~derivative of the antibody~~ conjugate according to claim 1, wherein the antibody fragment is an antibody fragment selected from Fab, Fab', F(ab')<sub>2</sub>, a single chain antibody (scFv), a disulfide stabilized V region fragment (dsFv) and a peptide comprising CDR CDR1, CDR2 and CDR3 of the H chain V region and CDR1, CDR2 and CDR3 of the L chain V region.

Claims 25. (Canceled)

26. (Previously Presented) The derivative of the antibody fragment according to claim 1, wherein the antibody fragment comprises an H chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:55.

27. (Previously Presented) The derivative of the antibody fragment according to claim 1, wherein the antibody fragment comprises an L chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:56.

28. (Previously Presented) The derivative of the antibody fragment according to claim 1, wherein the antibody fragment comprises:

an H chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:55; and

an L chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:56.

Claim 29. (Canceled)

30. (Previously Presented) The derivative of the antibody fragment according to claim 1, wherein the antibody fragment comprises an H chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:9.

31. (Previously Presented) The derivative of the antibody fragment according to claim 1, wherein the antibody fragment comprises an L chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:54.

32. (Previously Presented) The derivative of the antibody fragment according to claim 1, wherein the antibody fragment comprises:

an H chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:9; and

an L chain V region of the antibody having the amino acid sequence represented by SEQ ID NO:54.

Claims 33-35. (Canceled)

36. (Previously Presented) The derivative of a monoclonal antibody or the antibody fragment thereof according to claim 1, wherein the protein is a cytokine.

37. (Original) The derivative of a monoclonal antibody or the antibody fragment thereof according to claim 36, wherein the cytokine is human interleukin-2 (hIL-2).

38. (Original) The derivative of an antibody according to claim 37, wherein the derivative of an antibody comprises a human chimeric antibody KM871 and hIL-2.

39. (Original) The derivative of an antibody according to claim 38, wherein the antibody conjugated with hIL-2 comprises:

an H chain V region having the amino acid sequence represented by SEQ ID NO:57; and

an L chain V region having the amino acid sequence represented by SEQ ID NO:56.

40. (Original) The derivative of an antibody according to claim 37, wherein the derivative of an antibody comprises a human CDR-grafted antibody KM8871 and hIL-2.

41. (Original) The derivative of an antibody according to claim 1, wherein the antibody conjugated with hIL-2 comprises:

an H chain V region having the amino acid sequence represented by SEQ ID NO:53; and

an L chain V region having the amino acid sequence represented by SEQ ID NO:54.

Claims 42-47. (Canceled)

48. (Currently Amended) A ~~human CDR-grafted~~ humanized antibody or ~~the an~~ antibody fragment thereof which specifically ~~reacts with~~ binds to ganglioside GD3 and comprises:



an H chain V region having the amino acid sequence represented by SEQ ID NO:9 or the amino acid sequence in which at least one or more amino acid residue selected from 10th position Gly, the 11th position Leu, 20th position Leu, 28th position Thr, 84th position Asn, 91st position Thr, 95th position Tyr, 97th position Ala and 115th position Val in the amino acid sequence represented by SEQ ID NO:9 is replaced with another amino acid residue; and

an L chain V region having the amino acid sequence in which at least one or more amino acid residue selected from 49th position Tyr, the 65th position Ser and 71st position Phe represented by SEQ ID NO:10 is replaced with another amino acid residue.

Claim 49. (Canceled)

50. (Original) The human CDR-grafted antibody or the antibody fragment thereof according to claim 48, wherein the human CDR-grafted antibody comprises:

CDRs of an H chain V region and an L chain V region of a monoclonal antibody against ganglioside GD3; and

FRs of an H chain V region and an L chain V region of a human antibody.

51. (Currently Amended) The ~~human CDR-grafted~~ humanized antibody or the antibody fragment thereof according to claim 48, wherein the ~~human CDR-grafted~~ humanized antibody comprises:

~~CDRs of an H chain V region and an L chain V region of a monoclonal antibody  
ganglioside GD3;~~

~~FRS of an H chain V region and an L chain V region of a human antibody; and  
an H chain V region having the amino acid sequence represented by SEQ ID  
NO:9 or the amino acid sequence represented by SEQ ID NO:9 in which at least one or  
more amino acid residue selected from 10th position Gly, the 11th position Leu, 20th  
position Leu, 28th position Thr, 84th position Asn, 91st position Thr, 95th position Tyr,  
97th position Ala and 115th position Val is replaced with another amino acid residue;  
an L chain V region having the amino acid sequence represented by SEQ ID  
NO:10 in which at least one or more amino acid residue selected from 49th position Tyr,  
the 65th position Ser and 71st position Phe is replaced with another amino acid residue;  
and~~

an H chain C region and an L chain C region of a human antibody.

Claims 52-54. (Canceled)

55. (Currently Amended) The human CDR-grafted antibody or the antibody  
fragment thereof according to claim 48~~claim 49~~, wherein the H chain V region of the  
antibody comprises the amino acid sequence represented by SEQ ID NO:9.

56. (Currently Amended) The human CDR-grafted antibody or the antibody  
fragment thereof according to claim 48~~claim 49~~, wherein the L chain V region of the  
antibody comprises the amino acid sequence represented by SEQ ID NO:54.

57. (Currently Amended) The human CDR-grafted antibody or the antibody fragment thereof according to claim 48~~claim 49~~, wherein

the H chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:9; and

the L chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:54.

58. (Currently Amended) The human CDR-grafted antibody KM8871 or the antibody fragment thereof according to claim 48~~claim 49~~, wherein

the H chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:9; and

the L chain V region of the antibody comprises the amino acid sequence represented by SEQ ID NO:54.

Claims 59-61. (Canceled)

62. (Withdrawn) A transformant KM8871 (FERM BP-6790) which produces the human CDR-grafted antibody according to claim 58.

Claims 63-66. (Canceled)